



# Thames River

## PHOSPHORUS REDUCTION COLLABORATIVE

### Project Progress – March, 2019

#### Chatham, Ontario (Roesch Farm)

##### Site:

A 100-acre farm situated east of Chatham. Crops are seed corn, soybeans, specialty beans and winter wheat. There is a pig barn on the farm, and crops receive manure from it annually, using a 4R (right time, right place, right source, right rate) nutrient stewardship plan.

The 100-acre field is tiled, with a 12-inch outlet on each 25 acre lot that empties into the municipal McKinley drain, and then to the Thames. The soil is a very fine clay loam with phosphorus (P) readings of 50 to 65 ppm. It has a very slow infiltration rate (hydrologic soil group D).

The farm will be used to host the testing of several technologies, to be determined later in 2019.

##### Partners:

Ontario Ministry of Agriculture, Food and Rural Affairs responsible for the model to calculate P recovery and water flow.

[Lower Thames Valley Conservation Authority](#) maintains the 25 acre site, conduct sampling and have the water analyzed.



Thames River PRC providing funding to support sampling.

##### Research description:

One 25-acre field is being used to measure P removal using a Filtrexx Nutrilock sorption material. Testing began in April 2018. Tile water is channeled through two tanks where P is absorbed. In the fall of 2018, modifications were made to the tile to channel water to the treatment

tanks by Gillier Drainage. A weather station will be added in 2019.

**Measurements:**

Pounds of P removed will be the metric, and calculated using data on total P and dissolved P for the technology's efficiency.

**Progress:**

Installation and start-up in April, 2018. Initial results expected in March, 2019.

